

MV-XC299X-1212A is a Crystal Oscillator (XO) . This XO is a low power, CMOS output oscillator and comes in a hermetically sealed 12.8 x 12.8mm package.

The device is qualified to meet the JEDEC standard for Pb-Free assembly and compliant to the RoHS directive.

Electrical Performance

Parameter	Min	Typ	Max	Units
General				
Output Frequency	10		2100	kHz
Operating Temperature		-10/+70 -40/+85 -55/+125		°C
Stability Over Temperature		±100 ±50		ppm
Calibration Tolerance		±30 ±20 ±10		ppm
Load Stability (±10% Change)			±1.0	ppm
Aging		±1.0	±3.0	ppm/year
Package Size		12.8 x 12.8 x 5.7		mm
Supply				
Supply Voltage (Vdd)	3.14	3.3	3.47	V
Supply Current (@ 3V)		10		µA
Output				
Output Signal		CMOS		
Output Logic Level				
Output Level - Logic High	Vdd x 0.9			V
Output Level - Logic Low			Vdd x 0.1	V
Output Load		15 pF		
Output Rise and Fall Time		29	50	ns
Duty Cycle	40	50	60	%

Notes:

Maximum Ratings

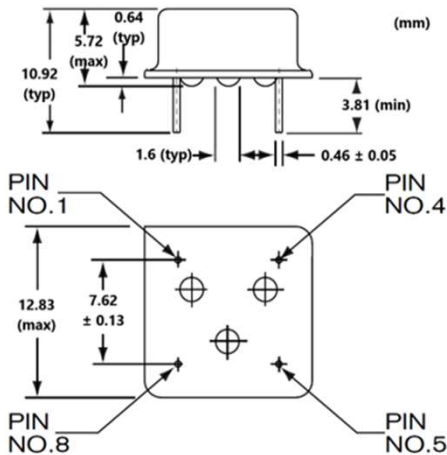
Storage Temp	-55°C to 125°C
Supply Voltage	-0.5V to +7.0V
Enable/Disable Voltage	-0.5V to Vdd+0.5V
Junction Temperature	+150 °C

Maximum Ratings Notes:

- 1 Stresses in excess of the absolute maximum ratings can permanently damage the device.
- 2 Exposure to absolute maximum ratings for extended periods may adversely affect device reliability.

Package Information

Pin #	Function
Pin 1	E/D = Tri-state or NC
Pin 4	GND = Ground
Pin 5	OUT = Output
Pin 8	Vdd = Supply Voltage



Package Outline Drawing

Handling and Construction

Package Construction	hermetically sealed
Contact Pads	Gold over Nickle
Pad Metal Thickness	Gold (0.3µm min - 1.0µm max) over Nickel
Moisture Sensitivity Level	MSL 1
ESD, Human Body Model	1500V
ESD, Charge Device Model	1500V

Ordering Information
MV-XC299X-1212A -

XO, CMOS

12.8 x 12.8 x 5.7mm, 4 Pins

B x x x

① ② ③ ④

- xxKxxxxx

Frequency

① Voltage

B: 3.3 V

② Temp Range

J: -10/+70 °C

K: -40/+85 °C

N: -55/+125 °C

③ Temp Stability

A: ±100 ppm

C: ±50 ppm

④ Initial Tolerance

J: ±10 ppm

F: ±20 ppm

D: ±30 ppm